

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/970,944

DATE: 05/13/2002

TIME: 14:45:04

Input Set : A:\Cura-438.app

```
3 <110> APPLICANT: Herrman, John L
              Rastelli, Luca
      5
              Shimkets, Richard A
      7 <120> TITLE OF INVENTION: Novel Proteins and Nucleic Acids Encoding Same and
              Antibodies Directed Against these Proteins
     10 <130> FILE REFERENCE: 21402-138
     12 <140> CURRENT APPLICATION NUMBER: 09/970,944
C--> 13 <141> CURRENT FILING DATE: 2002-05-02
    15 <150> PRIOR APPLICATION NUMBER: 60/237,862
    16 <151> PRIOR FILING DATE: 2000-10-04
    18 <160> NUMBER OF SEQ ID NOS: 62
    20 <170> SOFTWARE: PatentIn Ver. 2.1
    22 <210> SEQ ID NO: 1
    23 <211> LENGTH: 2881
    24 <212> TYPE: DNA
    25 <213> ORGANISM: Homo sapiens
    27 <400> SEQUENCE: 1
    28 agetgggget eegggetgag gegetaaage egeceteeeg eeegegggge eeegegeeeg 60
    29 geoegeeege etgeeegeee geggeeatgg eegteeggee eggeetgtgg eeagegetee 120
    30 tgggcatagt cctcgccgct tggctccgcg gctcgggtgc ccagcagagt gccaccgtgg 180
    31 ccaacccagt gcctggtgcc aacccggacc tgcttcccca cttcctggtg gagcccgagg 240
    32 atgtgtacat cgtcaagaac aagccagtgc tgcttgtgtg caaggccgtg cccgccacgc 300
    33 agatettett caagtgeaac ggggagtggg tgegeeaggt ggaceaegtg ategagegea 360
    34 gcacagacgg gagcagtggt gagccgacca tggaggtccg cattaatgtc tcaaggcagc 420
    35 aggtcgagaa ggtgttcggg ctggaggaat actggtgcca gtgcgtggca tggagctcct 480
    36 cgggcaccac caagagtcag aaggcctaca tccgcatagc cagattgcgc aagaacttcg 540
    37 agcaggagee getggeeaag gaggtgteee tggageaggg categtgetg eeetgeegte 600
    38 caccggaggg catccctcca gccgaggtgg agtggctccg gaacgaggac ctggtggacc 660
    39 cgtccctgga ccccaatgta tacatcacgc gggagcacag cctggtggtg cgacaggccc 720
    40 gccttgctga cacggccaac tacacctgcg tggccaagaa catcgtggca cgtcgccgca 780
    41 gcgcctccgc tgctgtcatc gtctacgtga acggtgggtg gtcgacgtgg accgagtggt 840
    42 ccgtctgcag cgccagctgt gggcgcggct ggcagaaacg gagccggagc tgcaccaacc 900
    43 cggcgcctct caacgggggc gctttctgtg aggggcagaa tgtccatgac cgcaccgtct 960
    44 cctctctgct tgtctctgtg gacggcagct ggagcccgtg gagcaagtgg tcggcctgtg 1020
    45 ggctggactg cacccactgg cggagccgtg agtgctctga cccagcaccc cgcaacggag 1080
    46 gggaggagtg ccagggcact gacctggaca cccgcaactg taccagtgac ctctgtgtac 1140
    47 acagtgette tggecetgag gaegtggeee tetatgtggg ceteategee gtggeegtet 1200
    48 gcctggtcct gctgctgctt gtcctcatcc tcgtttattg ccggaagaag gaggggctgg 1260
    49 actcagatgt ggctgactcg tocattctca cctcaggctt ccagcccgtc agcatcaagc 1320
    50 ccagcaaage agacaaceee catetgetea ccatecagee ggaceteage accaceaca 1380
    51 cctaccaggg cagtetetgt ecceggeagg atgggeecag ecceaagtte cageteacca 1440
    52 atgggcacct geteageece etgggtggeg geegeeacae aetgeaceae ageteteeca 1500
    53 cetetgagge egaggagtte gtetecegee tetecaceea gaactaette egeteeetge 1560
```

RAW SEQUENCE LISTING DATE: 05/13/2002 PATENT APPLICATION: US/09/970,944 TIME: 14:45:04

Input Set : A:\Cura-438.app

```
54 cocgaggeac cageaacatg acetatggga cetteaactt ceteggggge eggetgatga 1620
55 tecetaatae aggtateage etecteatee eeccagatge cataceeega gggaagatet 1680
56 atgagateta ceteaegetg cacaageegg aagaegtgag gttgeeeeta getggetgte 1740
57 agaccetget gagteceate gttagetgtg gaccecetgg egtectgete accequeag 1800
58 teatectgge tatggaceae tgtggggage ceagecetga cagetggage etgegeetea 1860
59 aaaagcagtc gtgcgagggc agctgggagc aggatgtgct gcacctgggc gaggaggcgc 1920
60 cctcccacct ctactactgc cagetggagg ccagtgcctg ctacgtcttc accgagcage 1980
61 tgggccgctt tgccctggtg ggagaggccc tcagcgtggc tgccgccaag cgcctcaagc 2040
62 tgcttctgtt tgcgccggtg gcctgcacct ccctcgagta caacatccgg gtctactgcc 2100
63 tgcatgacac ccacgatgca ctcaaggagg tggtgcagct ggagaagcag ctggggggac 2160
64 agctgatcca ggagccacgg gtcctgcact tcaaggacag ttaccacaac ctgcgcctat 2220
65 ccatccacga tgtgcccagc tccctgtgga agagtaagct ccttgtcagc taccaggaga 2280
66 teceetttta teacatetgg aatggeaege ageggtaett geaetgeaee tteaceetgg 2340
67 agogtgtcag coccagoact agtgacotgg cotgoaagot gtgggtgtgg caggtggagg 2400
68 gcgacgggca gagcttcagc atcaacttca acatcaccaa ggacacaagg tttgctgagc 2460
69 tgctggctct ggagagtgaa gcgggggtcc cagccctggt gggccccagt gccttcaaga 2520
70 teccetteet catteggeag aagataattt ceageetgga eecaceetgt aggegggtg 2580
71 cogactggcg gactctggcc cagaaactcc acctggacag ccatctcagc ttctttgcct 2640
72 ccaagcccag ccccacagcc atgatcctca acctgtggga ggcgcggcac ttccccaacg 2700
73 gcaacctcag ccagctggct gcagcagtgg ctggactggg ccagccagac gctggcctct 2760
74 teacagtgte ggaggetgag tgetgaggee ggeeaggeee gacacetaca eteteaceag 2820
75 ctttggcacc caccaaggac aggcagaagc cggacagggg cccttcccca caccggggag 2880
76 a
79 <210> SEQ ID NO: 2
80 <211> LENGTH: 899
81 <212> TYPE: PRT
82 <213> ORGANISM: Homo sapiens
84 <400> SEQUENCE: 2
85 Met Ala Val Arg Pro Gly Leu Trp Pro Ala Leu Leu Gly Ile Val Leu
88 Ala Ala Trp Leu Arg Gly Ser Gly Ala Gln Gln Ser Ala Thr Val Ala
89
                20
                                    25
91 Asn Pro Val Pro Gly Ala Asn Pro Asp Leu Leu Pro His Phe Leu Val
94 Glu Pro Glu Asp Val Tyr Ile Val Lys Asn Lys Pro Val Leu Leu Val
                            55
97 Cys Lys Ala Val Pro Ala Thr Gln Ile Phe Phe Lys Cys Asn Gly Glu
                                            75
100 Trp Val Arg Gln Val Asp His Val Ile Glu Arg Ser Thr Asp Gly Ser
101
                     85
                                         90
103 Ser Gly Glu Pro Thr Met Glu Val Arg Ile Asn Val Ser Arg Gln Gln
                100
                                    105
106 Val Glu Lys Val Phe Gly Leu Glu Glu Tyr Trp Cys Gln Cys Val Ala
            115
                                120
                                                    125
109 Trp Ser Ser Ser Gly Thr Thr Lys Ser Gln Lys Ala Tyr Ile Arg Ile
110
112 Ala Arg Leu Arg Lys Asn Phe Glu Gln Glu Pro Leu Ala Lys Glu Val
113 145
                        150
                                            155
115 Ser Leu Glu Gln Gly Ile Val Leu Pro Cys Arg Pro Pro Glu Gly Ile
```

DATE: 05/13/2002 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/970,944 TIME: 14:45:04

Input Set : A:\Cura-438.app
Output Set: N:\CRF3\05132002\1970944.raw

116					165					170					175	
	Pro	Pro	Ala	Glu		Glu	Trp	Leu	Arq	Asn	Glu	Asp	Leu	Val	Asp	Pro
119				180			-		185			-		190	-	
	Ser	Leu	Asp	Pro	Asn	Val	Tyr	Ile	Thr	Arg	Glu	His	Ser	Leu	Val	Val
122			195				-	200		-			205			
	Ara	Gln	Ala	Arq	Leu	Ala	Asp	Thr	Ala	Asn	Tyr	Thr	Cys	Val	Ala	Lys
125	9	210					215				•	220	-			_
	Asn		Val	Ala	Arq	Arg	Arq	Ser	Ala	Ser	Ala	Ala	Val	Ile	Val	Tyr
	225				5	230	,				235					240
		Asn	Glv	Glv	Trp	Ser	Thr	Trp	Thr	Glu	Trp	Ser	Val	Cys	Ser	Ala
131			1	- 2	245			•		250	-			-	255	
	Ser	Cvs	Glv	Ara	Glv	Trp	Gln	Lvs	Arq	Ser	Arq	Ser	Cys	Thr	Asn	Pro
134	• • •	-1-	1	260	1			4	265		_		•	270		
	Αla	Pro	Leu		Glv	Gly	Ala	Phe	Cvs	Glu	Gly	Gln	Asn	Val	His	Asp
137			275		1	1		280			-		285			-
	Ara	Thr		Ser	Ser	Leu	Leu	Val	Ser	Val	Asp	Gly	Ser	Trp	Ser	Pro
140	••- 9	290					295				•	300		•		
	Trp		Lvs	Trp	Ser	Ala		Glv	Leu	Asp	Cvs	Thr	His	Trp	Arg	Ser
	305	201	-1-			310	-1-	2		• •	315			-	_	320
		Glu	Cvs	Ser	Asp	Pro	Ala	Pro	Arq	Asn	Gly	Gly	Glu	Glu	Cys	Gln
146	5		-1-		325				,	330	-	_			335	
	Glv	Thr	Asp	Leu		Thr	Ara	Asn	Cvs		Ser	qzA	Leu	Cys	Val	His
149				340			5		345					350		
	Ser	Ala	Ser		Pro	Glu	Asp	Val		Leu	Tvr	Val	Gly	Leu	Ile	Ala
152	501		355	J-1				360			-		365			
	Val	Ala		Cvs	Leu	Val	Leu	Leu	Leu	Leu	Val	Leu	Ile	Leu	Val	Tyr
155		370		-1-			375					380				-
	Cvs		Lvs	Lvs	Glu	Gly		Asp	Ser	Asp	Val	Ala	Asp	Ser	Ser	Ile
	385		-1-	1-		390		•		•	395		•			400
		Thr	Ser	Glv	Phe	Gln	Pro	Val	Ser	Ile	Lys	Pro	Ser	Lys	Ala	Asp
161				- 4	405					410	-			_	415	_
	Asn	Pro	His	Leu	Leu	Thr	Ile	Gln	Pro	Asp	Leu	Ser	Thr	Thr	Thr	Thr
164				420					425	-				430		
	Tyr	Gln	Gly	Ser	Leu	Cys	Pro	Arg	Gln	Asp	Gly	Pro	Ser	Pro	Lys	Phe
167	•		435			-		440					445			
169	Gln	Leu	Thr	Asn	Gly	His	Leu	Leu	Ser	Pro	Leu	Gly	Gly	Gly	Arg	His
170		450			-		455					460				
	Thr	Leu	His	His	Ser	Ser	Pro	Thr	Ser	Glu	Ala	Glu	Glu	Phe	Val	Ser
	465					470					475					480
175	Arq	Leu	Ser	Thr	Gln	Asn	Tyr	Phe	Arg	Ser	Leu	Pro	Arg	Gly	Thr	Ser
176	_				485		_			490					495	
178	Asn	Met	Thr	Tyr	Gly	Thr	Phe	Asn	Phe	Leu	Gly	Gly	Arg	Leu	Met	Ile
179				500	_				505					510		
181	Pro	Asn	Thr	Gly	Ile	Ser	Leu	Leu	Ile	Pro	Pro	Asp	Ala	Ile	Pro	Arg
182			515	_				520					525			
	Gly	Lys	Ile	Tyr	Glu	Ile	Tyr	Leu	Thr	Leu	His	Lys	Pro	Glu	Asp	Val
185	_	530					535					540				
187	Arg	Leu	Pro	Leu	Ala	Gly	Cys	Gln	Thr	Leu	Leu	Ser	Pro	Ile	Val	Ser
188	545					550					555					560

RAW SEQUENCE LISTING

DATE: 05/13/2002

PATENT APPLICATION: US/09/970,944

TIME: 14:45:04

Input Set : A:\Cura-438.app

190 191	Cys	Gly	Pro	Pro	Gly 565	Val	Leu	Leu	Thr	Arg 570	Pro	Val	Ile	Leu	Ala 575	Met
	Asp	His	Cys	Gly 580	Glu	Pro	Ser	Pro	Asp 585	Ser	Trp	Ser	Leu	Arg 590	Leu	Lys
196 197	Lys	Gln	Ser 595	Cys	Glu	Gly	Ser	Trp 600	Glu	Gln	Asp	Val	Leu 605	His	Leu	Gly
199 200	Glu	Glu 610	Ala	Pro	Ser	His	Leu 615	Tyr	Tyr	Cys	Gln	Leu 620	Glu	Ala	Ser	Ala
	Cys 625	Tyr	Val	Phe	Thr	Glu 630	Gln	Leu	Gly	Arg	Phe 635	Ala	Leu	Val	Gly	Glu 640
		Leu	Ser	Val	Ala 645		Ala	Lys	Arg	Leu 650		Leu	Leu	Leu	Phe 655	
	Pro	Val	Ala	Cys 660		Ser	Leu	Glu	Tyr 665		Ile	Arg	Val	Tyr 670		Leu
	His	Asp	Thr 675		Asp	Ala	Leu	Lys 680		Val	Val	Gln	Leu 685		Lys	Gln
	Leu	Gly 690		Gln	Leu	Ile	Gln 695		Pro	Arg	Val	Leu 700		Phe	Lys	Asp
217	Ser 705	Tyr	His	Asn	Leu	Arg 710		Ser	Ile	His	Asp 715		Pro	Ser	Ser	Leu 720
		Lys	Ser	Lys	Leu 725	Leu	Val	Ser	Tyr	Gln 730	Glu	Ile	Pro	Phe	Tyr 735	His
	Ile	Trp	Asn	Gly 740	Thr	Gln	Arg	Tyr	Leu 745	His	Cys	Thr	Phe	Thr 750	Leu	Glu
226 227	Arg	Val	Ser 755	Pro	Ser	Thr	Ser	Asp 760	Leu	Ala	Cys	Lys	Leu 765	Trp	Val	Trp
229 230	Gln	Val 770	Glu	Gly	Asp	Gly	Gln 775	Ser	Phe	Ser	Ile	Asn 780	Phe	Asn	Ile	Thr
	Lys 785	Asp	Thr	Arg	Phe	Ala 790	Glu	Leu	Leu	Ala	Leu 795	Glu	Ser	Glu	Ala	Gly 800
235 236	Val	Pro	Ala	Leu	Val 805	Gly	Pro	Ser	Ala	Phe 810	Lys	Ile	Pro	Phe	Leu 815	Ile
238 239	Arg	Gln	Lys	Ile 820	Ile	Ser	Ser	Leu	Asp 825	Pro	Pro	Cys	Arg	Arg 830	Gly	Ala
241 242	Asp	Trp	Arg 835	Thr	Leu	Ala	Gln	Lys 840	Leu	His	Leu	Asp	Ser 845	His	Leu	Ser
245		Phe 850			-		855					860				_
248	865	Ala				870		_			875					880
251		Ala		Leu	Gly 885	Gln	Pro	Asp	Ala	Gly 890	Leu	Phe	Thr	Val	Ser 895	Glu
	253 Ala Glu Cys 257 <210> SEQ ID NO: 3															
259	258 <211> LENGTH: 14536 259 <212> TYPE: DNA															
262	<400	3> OI 3> SI	EQUE	ICE:	3											
263	263 ggagttttcc accatgacta ttgccctgct gggttttgcc atattcttgc tccattgtgc 60															



PATENT APPLICATION: US/09/970,944

DATE: 05/13/2002 TIME: 14:45:04

Input Set : A:\Cura-438.app

264	asaatatasa	aagcctctag	220002++0+	ataataatat	aattaaaaat	tanananata	1 2 0
		gccaccatct					
		atctacctcg					
		aatgtattta					
		aagagcagca					
		caagccacag					
		gaccagaatg					
		gacatgcccc					
		aatgctgagt					
		agcggtgtgg					
		caggtgctag					
		gctgcacttg					
		gtggtgactc					
		aatagctcag					
		ttcaaagcca					
		atcaactgga			_		
		ggcccttatt					
	-	ctcaaattcg				•	
		cgcgtggtga		_			
283	tctaaagcca	tcttcagaga	atgtaggatt	taaacttaat	gctcgaactg	ggttgatcac	1260
		ctcatggact					
285	accgggccag	gcctccaccg	tggtggtcat	tgacattgtg	gactgcaaca	accatgcccc	1380
		aggtcttcct					
		gtgactgcca					
288	cattgctgga	ccaaaagctt	tgccattttc	tattgacccc	tacctgggga	tcatctccac	1560
289	ctccaaaccc	atggactatg	aactcatgaa	aagaatttat	accttccggg	taagagcatc	1620
290	agactgggga	tcccctttc	gccgggagaa	ggaagtgtcc	atttttcttc	agctcaggaa	1680
291	cttgaatgac	aaccagccta	tgtttgaaga	agtcaactgt	acagggtcta	tccgccaaga	1740
292	ctggccagta	gggaaatcga	taatgactat	gtcagccata	gatgtggatg	agcttcagaa	1800
293	cctaaaatac	gagattgtat	caggcaatga	actagagtat	tttgatctaa	atcatttctc	1860
294	cggagtgata	tccctcaaac	gcccttttat	caatcttact	gctggtcaac	ccaccagtta	1920
295	ttccctgaag	attacagcct	cagatggcaa	aaactatgcc	tcacccacaa	ctttgaatat	1980
296	tactgtggtg	aaggaccctc	attttgaagt	tcctgtaaca	tgtgataaaa	caggggtatt	2040
		acaaagacta		-			
	_	acttctttaa					
		caatccattg	_	_			
		actgaccctg					
		gagggctgct					
		tatgaagcca					
		aagtcctcct			-		
		tttcctcccg					
		gcagagctga		-			
		ctaagtccca					
		cacctggacc					
		agcaaaggcc					
		gacaactctc					
		cccgggactg					
		gtgcgatatg	_				
		gcgctcattc					
	J - J J J J	J.J	J J J J J J	J. = J J = = = = 0 G	J - J J J J J		

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/09/970,944

DATE: 05/13/2002 TIME: 14:45:05

Input Set : A:\Cura-438.app

Output Set: N:\CRF3\05132002\1970944.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; N Pos. 2,3,4,5,6,7,9,10,11,12,17,19,22,25,28,29,30

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/970,944

DATE: 05/13/2002

TIME: 14:45:05

Input Set : A:\Cura-438.app

Output Set: N:\CRF3\05132002\1970944.raw

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1826 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0